included in the reply message and the original sender address is included in a "TO" field. However, conventionally, the user may still change the original sender address in the "TO" field and/or add recipients by specifying the address in the "CC" (Carbon Copy) field or "BCC" (Blind Carbon Copy) field. To prevent a user from disseminating the e-mail, the ability to edit the TO, CC, and BCC fields may be disabled thus preventing the user from using the reply button to reply to anyone but the original sender.

In addition, conventional e-mail programs typically have a "reply all" button which is similar to the "reply" button except that selecting the reply all button also automatically fills the CC field of the reply message with the addresses that were original listed in the CC field of the original message. To prevent dissemination using the reply all button, editing of the TO, CC, and BCC fields in the new reply message may be disabled as well.

In order to further secure the reply message, the client reader 203 may set the same "eyes-only" attributes in the reply message that were set in the original message. The eyes-only indicator thus significantly limits the tool that may be used by an intended reader to disseminate an e-mail message when such dissemination is undesired by the sender of the e-mail message. Thus, the principles of the invention reduce the likelihood that a sensitive e-mail message may be leaked to unintended parties.

The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

What is claimed and desired to be secured by United States Letters Patent is:

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1. In an e-mail sender client that is network connectable to an e-mail reader client so as to be capable of sending an e-mail message to the e-mail reader client, a method of transmitting the e-mail message in a way that discourages dissemination of information contained within the e-mail message, the method comprising the following:

an act of accessing an e-mail message;

an act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message;

an act of associating the indicator with the accessed e-mail message;

an act of encrypting the e-mail message; and

an act of dispatching the e-mail message to the e-mail reader client in encrypted form.

2. A method in accordance with Claim 1, wherein the indicator further identifies the one or more functions that limit the opportunity to disseminate e-mail messages.

3. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating a disablement of printing the e-mail message.

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4. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating a disablement of copying the e-mail message.

5. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating a disablement of saving the e-mail message.

6. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating a disablement of forwarding the e-mail message.

7. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating a disablement of print screening the e-mail message.

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8. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating that reply functions are to be limited.

9. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating that reply all functions are to be limited.

10. A method in accordance with Claim 1, wherein the act of setting an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of setting an indicator indicating that the e-mail message should only be temporarily displayed on a monitor.

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11. In an e-mail sender client that is network connectable to a e-mail reader client so as to be capable of sending an e-mail message to the e-mail reader client, a method of transmitting the e-mail message in a way that discourages dissemination of information contained within the e-mail message, the method comprising the following:

an act of accessing an e-mail message;

a step for indicating that dissemination of the e-mail message is discouraged;

an act of encrypting the e-mail message; and

an act of dispatching the e-mail message to the e-mail reader client in encrypted form.

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12. A computer program product for use in an e-mail sender client that is network connectable to a e-mail reader client so as to be capable of sending an e-mail message to the e-mail reader client, the computer program product for implementing a method of transmitting the e-mail message in a way that discourages dissemination of information contained within the e-mail message, the computer program product comprising a computer-readable medium having stored thereon computer-executable instructions for performing the following:

an act of causing an e-mail message to be accessed;

an act of causing an indicator to be set, the indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message;

an act of causing the indicator to be associated with the accessed e-mail message;

an act of encrypting the e-mail message; and

an act of causing the e-mail message to be dispatched the e-mail reader client in encrypted form.

13. A computer program product in accordance with Claim 12, wherein the computer-readable medium is one or more physical storage media.

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14. In an e-mail server that is network connectable to an e-mail sender client and to an e-mail reader client so as to be capable of receiving e-mail messages from the e-mail sender client and communicate e-mail message to the e-mail reader client, a method of discouraging dissemination of information contained within an e-mail message received from the e-mail sender client, the method comprising the following:

an act of receiving an e-mail message in encrypted form;

an act of storing the e-mail message in encrypted form;

an act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message;

an act of verifying that the e-mail reader client is capable of implementing the one or more functions; and

after the act verifying, an act of transmitting the e-mail message to the e-mail reader client in encrypted form.

15. A method in accordance with Claim 14, further comprising:

an act of authenticating a user of the e-mail reader client as being an intended recipient of the e-mail message, wherein the act of transmitting occurs after the act of authenticating.

16. A method in accordance with Claim 14, wherein the indicator further identifies the one or more functions that limit the opportunity to disseminate e-mail messages.

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17. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating the disablement of printing the e-mail message.

18. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating the disablement of copying the e-mail message.

19. A method in accordance with Claim 18, wherein the act of determining that the e-mail message has an associated indicator indicating the disablement of copying the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating the disablement of the cut editing function.

20. A method in accordance with Claim 18, wherein the act of determining that the e-mail message has an associated indicator indicating the disablement of copying the e-mail message comprises the following:

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an act of determining that the e-mail message has an associated indicator indicating the disablement of the copy editing function.

21. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating the disablement of saving the e-mail message.

22. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating the disablement of forwarding the e-mail message.

23. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating that reply functions are to be limited.

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24. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating that reply all functions are to be limited.

25. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message has an associated indicator indicating the disablement of print screening the e-mail message.

26. A method in accordance with Claim 14, wherein the act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message comprises the following:

an act of determining that the e-mail message should only be temporarily displayed on a monitor.

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27. A computer program product for use in an e-mail server that is network connectable to an e-mail sender client and to an e-mail reader client so as to be capable of receiving e-mail messages from the e-mail sender client and communicate e-mail message to the e-mail reader client, the computer program product for implementing a method of discouraging dissemination of information contained within an e-mail message received from the e-mail sender client, the computer program product comprising a computer-readable medium having stored thereon computer-executable instructions for performing the following:

an act of detecting the receipt of an e-mail message in encrypted form;

an act of causing the e-mail message to be stored in encrypted form;

an act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message;

an act of verifying that the e-mail reader client is capable of implementing the one or more functions; and

after verifying, causing the e-mail message to be transmitted to the e-mail reader client in encrypted form.

28. A computer program product in accordance with Claim 27, wherein the computer-readable medium is one or more physical storage media.

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29. In an e-mail reader client that is network connectable to an e-mail sender client so as to be capable of receiving an e-mail message from e-mail sender client, a method of discouraging dissemination of information contained within the e-mail message, the method comprising the following:

an act of receiving an e-mail message in encrypted form;

an act of storing the e-mail message in encrypted form;

an act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message; and

an act of implementing the one or more functions on the e-mail message.

30. The method in accordance with Claim 29, further comprising the following:

an act of identifying the one or more functions from the indicator.

31. The method in accordance with Claim 29, wherein the one or more functions are default functions to be performed upon completion of the act of determining.

32. The method in accordance with Claim 29, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of disabling printing of the e-mail message.

33. The method in accordance with Claim 29, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of disabling copying of the e-mail message.

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34. The method in accordance with Claim 29, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of disabling saving of the e-mail message.

35. The method in accordance with Claim 29, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of disabling forwarding of the e-mail message.

36. The method in accordance with Claim 29, wherein the act of determining comprises an act of determining that reply functions are to be limited, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of receiving a user input selection of a reply button;

generating a reply message template in response to the user input selection;

an act of disabling the editing of the addressing fields corresponding to the reply message template.

37. The method in accordance with Claim 36, wherein the act of disabling the editing of the reply message template comprises the following:

an act of disabling the editing of the "TO" address field;

an act of disabling the editing of the "CC" address field; and

an act of disabling the editing of the "BCC" address field.

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38. The method in accordance with Claim 29, wherein the act of determining comprises an act of determining that reply all functions are to be limited, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of receiving a user input selection of a reply all button;

an act of generating a reply message template in response to the user input selection;

an act of disabling the editing of the addressing fields corresponding to the reply message template.

39. The method in accordance with Claim 38, wherein the act of disabling the editing of the reply message template comprises the following:

an act of disabling the editing of the "TO" address field;

an act of disabling the editing of the "CC" address field; and

an act of disabling the editing of the "BCC" address field.

40. The method in accordance with Claim 29, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of disabling print screening of the e-mail message.

41. The method in accordance with Claim 29, wherein the act of implementing the one or more functions on the e-mail message comprises the following:

an act of displaying the e-mail message for a predetermined amount of time; and

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an act of disabling the display of the e-mail message after the act of displaying.

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42. In an e-mail reader client that is network connectable to an e-mail sender client so as to be capable of receiving an e-mail message from e-mail sender client, a method of discouraging dissemination of information contained within the e-mail message, the method comprising the following:

an act of receiving an e-mail message in encrypted form;

an act of storing the e-mail message in encrypted form;

a step for discouraging the dissemination of e-mail messages if an intent to discourage is associated with the e-mail message.

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43. A computer program product for use in an e-mail reader client that is network connectable to an e-mail sender client so as to be capable of receiving an e-mail message from e-mail sender client, the computer program product for implementing a method of discouraging dissemination of information contained within the e-mail message, the method comprising the following:

an act of detecting the receipt of an e-mail message in encrypted form;

an act of causing the e-mail message to be stored in encrypted form;

an act of determining that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message; and

an act of causing the one or more functions to be applied to the e-mail message.

44. A computer program product in accordance with Claim 43, wherein the computer-readable medium is one or more physical storage media.

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45. A computer network for use e-mail communications, the computer network comprising the following:

an e-mail sender client;

an e-mail server network connectable to the e-mail sender client so as to be able to receive e-mail messages from the e-mail sender client; and

an e-mail reader client network connectable to the e-mail server so as to be able to receive e-mail messages from the e-mail server;

wherein the e-mail sender client is configured to:

access an e-mail message,

set an indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message,

associate the indicator with the accessed e-mail message;

encrypt the e-mail message; and

dispatch the e-mail message to the e-mail reader client in encrypted form;

wherein the e-mail server is configured to:

receive the e-mail message in encrypted form;

store the e-mail message in encrypted form;

determine that the e-mail message has the indicator;

verify that the e-mail reader client is capable of implementing the one or more functions;

authenticate a user of the e-mail reader client as being an intended recipient of the e-mail message; and

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transmit the e-mail message to the e-mail reader client in encrypted form; and

wherein the e-mail reader client is configure to:

receive the e-mail message in encrypted form;

store the e-mail message in encrypted form;

determine that the e-mail message has an associated indicator indicating that one or more functions that limit the opportunity to disseminate e-mail messages are to be applied to the e-mail message; and

implement the one or more functions on the e-mail message.

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46. A computer-readable medium having stored thereon a data structure, the data structure comprising:

a first data field that represents an e-mail message; and

a second data field associated with the first data field, the second data field representing whether eyes-only functions are to be performed on the e-mail message represented in the first data field.

47. A computer-readable medium in accordance with Claim 46, wherein the computer-readable medium is one or more physical storage media.

48. A data structure in accordance with Claim 46, further comprising:

a third data field identifying the eyes-only functions.

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